

REMARKS

Claims 1-30 are pending in the application. Claims 1, 7, 11, 14, 19, 22, and 28 are independent, and claims 2-6, 8-10, 12-13, 15-18, 20-21, 23-27, and 29-30 are dependent. No claims have been canceled. No claims have been amended. No new matter has been added. Based on the foregoing Amendment and the following Remarks, Applicant respectfully requests that the Examiner reconsider and withdraw all rejections and pass claims 1-30 to allowance.

Drawings

The Examiner requested that Figure be designated by the legend "Prior Art." Applicants have submitted a Request for Approval of Drawing Change under 37 C.F.R. §1.121 in papers filed herewith accommodating the Examiner's request. Applicants respectfully request that the Examiner remove the objections to the drawings.

Rejection of Claims 11-14, 19-25, and 28-29 Under 35 U.S.C. §102(e)

The Examiner rejected claims 11-14, 19-25, and 28-29 under 35 U.S.C. §102(b) as anticipated by U.S. Patent Publication No. 2002/0089711 to Conzone (hereinafter "Conzone"). A claim is anticipated only if each and every element of the claim is found in a reference. (M.P.E.P. § 2131 *citing Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628 (Fed. Cir. 1987)). The identical invention must be shown in as complete detail as is contained in the claim. *Id. citing Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989)). Applicants respectfully traverse the rejection.

Applicants respectfully submit that Conzone is not properly applied to the claimed invention. Conzone is directed to photonic devices made by physically abutting discrete components to each other and bonding the discrete components together using **a joining solution, high pressure, and low temperature**. In contrast, embodiments of the claimed invention are directed to an integrated optical circuit having: a first arrayed waveguide grating (AWG) and a second AWG **formed in** the integrated optical circuit; and a set of optical amplifiers **formed in** the integrated optical circuit between the first and second AWGs

(emphasis added). At page 10, lines 7-10, Applicants' Specification defines an integrated optical circuit as a planar lightwave circuit (PLC) on a silicon substrate manufactured using suitable semiconductor processing equipment. (See also, Figures 6 and 7.)

The Examiner asserts that Figure 10 of Conzone discloses an integrated optical circuit having a first arrayed waveguide grating (AWG) and a second AWG formed in the integrated optical circuit; and a set of optical amplifiers formed in the integrated optical circuit coupled between the first and second AWG via a set of waveguide elements to combine pump and optical signal light. Applicants respectfully disagree.

As discussed above, Figure 10 of Conzone only teaches discrete components bonded together using *a joining solution, high pressure, and low temperature*. Conzone does not teach an integrated optical circuit having: a first arrayed waveguide grating (AWG) and a second AWG *formed in* the integrated optical circuit; and a set of optical amplifiers *formed in* the integrated optical circuit between the first and second AWGs (emphasis added). As such, Conzone fails to teach the identical invention as the claimed invention. As such, the Examiner has not made out a *prima facie* case of anticipation.

Rejection of Claims 1-10, 15-18, 26-27, and 30 Under 35 U.S.C. § 103(a)

The Examiner rejected claims 1-10, 15-18, 26-27, and 30 under 35 U.S.C. § 103(a) as being unpatentable over Conzone. Applicants respectfully traverse the rejections.

To establish a *prima facie* case of obviousness, an Examiner must show that the references teach each and every element of the claimed invention. (MPEP §2143.) As discussed above with respect to claims 11-14, 19-25, and 28-29, Applicants respectfully submit that Conzone fails to teach each and every element of the claimed invention (e.g., "formed in the integrated optical circuit"). As such, the Examiner has not made out a *prima facie* case of obviousness.

Because the Examiner has not made out a *prima facie* case of anticipation with respect to claims 11-14, 19-25, and 28-29 or a *prima facie* case of obviousness with respect

claims 1-10, 15-18, 26-27, and 30, Applicants respectfully submit that claims 1-30 are patentable. Accordingly, Applicants respectfully request that the Examiner reconsider and remove the rejections to claims 1-30.

CONCLUSION

Applicants submit that all grounds for objection and rejection have been properly accommodated or traversed, and that the application is in condition for allowance. The Examiner is invited to telephone the undersigned representative if the Examiner believes that an interview might be useful for any reason.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN

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